

REMARKS/ARGUMENTS

Status of the application:

Prior to entry of this amendment, claims 1-49 are pending in the application. In an office action dated December 24, 2002, the claims were restricted into four classes: claims 1-7 and 19-28 (Class I), claims 8-18 (Class II), claims 29-36 (Class III), and claims 37-49 (Class IV). In a response mailed January 21, 2003, the applicants elected Class IV with traverse. An office action dated February 12, 2003 made the restriction requirement final; hence, prior to entry of this amendment, claims 37-49 are presented for examination.

The February 12, 2003 office action rejected claims 37 and 44 under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 5,515,842 (Ramseyer), rejected claims 38-41, 45-46 and 49 under 35 U.S.C. § 103(a) as being unpatentable over Ramseyer, rejected claims 43 and 48 under § 103(a) as being unpatentable over Ramseyer in light of U.S. Patent No. 4,926,915 (Duessen), and rejected claims 43 and 48 under § 103(a) as being unpatentable over Ramseyer in light of U.S. Patent No. 5,925,019 (Ljungquist). The office action also rejected claims 37-49 under the doctrine of obviousness-type double patenting as unpatentable over claims 1-31 of copending Application Ser. No. 09/876,402, and refused to consider the Information Disclosure Statement filed December 3, 2001 for failure to comply with 37 C.F.R. § 1.98(a)(2).

Claims 1-36 have been withdrawn. This amendment amends claims 37-39, 42 and 44, cancels claims 45-49 without prejudice or disclaimer, and adds new claims 50-69. Claims 40, 41 and 43 remain unchanged. Hence, after entry of this amendment, claims 37-44 and 50-69 stand pending for examination.

Information Disclosure Statement:

The applicants believe that the Supplemental Information Disclosure Statement filed December 3, 2001 (the "IDS") complies in all material respects with 37 C.F.R. § 1.98(a)(2), as that IDS disclosed only issued U.S. Patents, of which the Applicants believe complete copies of each were included with the IDS. Nonetheless, in an abundance of caution and to expedite

prosecution, an additional Supplemental Information Disclosure Statement, along with complete copies of all cited references, will be filed shortly.

New and amended claims:

As noted above, claims 37-39, 42 and 44 have been amended, and new claims 50-69 have been added. Support for the new and amended claims can be found, *inter alia*, in the present application at page 8, lines 32-34; page 10, lines 10-14; page 11, lines 30-33 and page 12, lines 1-13. Further support for the new and amended claims can be found, *inter alia*, in U.S. Patent No. 6,085,740 (incorporated by reference at page 6, line 4 of the present application), including for instance at column 3, lines 37-65.

The applicants submit that the cited references, either alone or in combination, fail to teach or suggest the new and amended claims. For example, as amended, claim 37 recites, *inter alia*, “an aperture plate having a front face and a rear face, with a plurality of apertures extending therebetween; and a vibratable element that is mechanically linked to the aperture plate, the vibratable element being configured to vibrate the aperture plate” Ramseyer fails to disclose this limitation. Instead, Ramseyer (col. 3, lns. 5-18) discloses that “liquid is moved from reservoir 1, through feed line 4 and to vibrator 3.” Thus, according to the device of Ramseyer, the liquid is supplied directly to the vibrator, which atomizes the liquid through high-frequency vibration. Ramseyer neither discloses nor suggests any need for an aperture plate that can be vibrated by the vibrator. Likewise, none of the other cited references remedy this failure of Ramseyer’s disclosure. For at least similar reasons, the cited references fail to teach or suggest the limitations of independent claims 55 and 65, and claims 37, 55 and 65 therefore are allowable over the cited references.

Dependent claims 38-44, 50-54, 56-64 and 66-69 are allowable as depending from allowable base claims as well as being directed to specific novel substitutes. Merely be way of example, dependent claim 51 is limited to an aperture plate that “is non-planar in geometry.” Even if the cited references did teach or suggest an aperture plate (and they do not), those references still would fail to disclose that the aperture plate can be non-planar in geometry. Likewise, dependent claim 52 recites, “the plurality of apertures are tapered to narrow from the

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rear face of the aperture plate to the front face of the aperture plate,” and dependent claim 53 recites, “the at least one of the plurality of apertures has a diameter of about 1 micron to about 6 microns at its narrowest dimension.” None of the cited references even discuss apertures in an aperture plate, let alone teach or suggest any aspects of dimension or geometry for such apertures. For at least these additional reasons, therefore, the dependent claims likewise are allowable over the cited references.

Further, the applicant believes that the double patenting rejection is moot in light of the amendments to claims 37-44.


For at least the reasons discussed above, the Applicants respectfully request that the rejections of claims 37-44 be withdrawn and that claims 37-69 be allowed.

CONCLUSION

In view of the foregoing, Applicants believe all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 303-571-4000.

Respectfully submitted,


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